

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

DATE: FEB 05 1981

SUBJECT: ACTION MEMORANDUM - ARCO/SOHIO, Prudhoe Bay, Alaska

FROM: Lloyd A. Reed, Director *LAR*  
Enforcement Division (M/S 517)

TO: Donald P. Dubois  
Regional Administrator (M/S 601)

Background

The application and subsequent PSD permit for the Waterflood Project was based on the turbines and heaters necessary to raise seawater injection temperatures to 40 degrees F. Further study by ARCO/SOHIO suggests that the seawater temperature in the underground injection pipes should be increased from 40 degrees to 80 degrees to reduce possible mineral deposits on the pipe. As a result, the Company has proposed to install additional turbines and heaters to meet this need. In lieu of submitting a PSD permit application for the additional units, the Company would like to utilize permitted emissions from previously permitted PSD sources that have not yet been constructed to cover emissions from the equipment needed to raise the water temperature the necessary amount. The request was made to avoid the possible 6 to 8 month delay caused by the PSD permitting process. To obviate the need for a PSD review of this new equipment, the Company opted to demonstrate that the "swap" would result in a no net increase situation (52.21(b)(3)). At our request, the Company supplied an ambient impact evaluation demonstrating the change in impacts due to the change in location and size of the original turbines and heaters vis-a-vis this request. Because the exact turbine and heater size at each location has not been determined, a worst case scenario was prepared to evaluate the impacts of the ARCO/SOHIO request.

Discussion

Our technical staff has reviewed the submitted information and concluded that the total horse power at each site location will not increase as a result of the "swap". Emissions and impacts are the same or less than those in the original permit. The Company understands that this action would reduce by eight the number of turbines permitted in permit No. PSD-X79-05. The proposed new limits for which this modification has been requested will be incorporated in the Waterflood PSD permit (PSD-X80-09). The emission limitations stated in the Waterflood permit apply to the proposed sources.

Recommendation

The staff recommendation is that you sign the letter to Mr. Norgaard and Mr. Nelson. Because the offsets result in a no net increase, it does not seem appropriate to reopen the public comment period.





U.S. ENVIRONMENTAL PROTECTION AGENCY

REGION X

1200 SIXTH AVENUE  
SEATTLE, WASHINGTON 98101



REPLY TO  
ATTN OF:

Mail Stop 521

FEB 05 1981

Mr. G. N. Nelson  
SOHIO Petroleum Company  
Pouch 6-612  
Anchorage, Alaska 99502

Dear Mr. Nelson:

We have evaluated your December 5, 1980 request to allow the construction of additional non-permitted sources associated with the Waterflood project under the no net increase provision as stipulated in the Prevention of Significant Deterioration (PSD) regulations (Section 52.21(b)(3)(i)).

Our technical staff concurs that the horsepower, emissions and air quality impacts from the proposed equipment will be offset by not constructing certain permitted equipment from PSD permit No. PSD-X79-05. Since there is no net change in emissions and since the new units will still be subject to the emission limitations and the compliance demonstrations in both the Waterflood and Increment II permits, independent PSD review for the equipment identified in your December 5 letter is not required.

In order to implement the requested changes, modifications to PSD permit No. PSD-X79-05, PSD-X80-09 and PSD-X81-01 are necessary. This letter hereby grants you authorization to change the following PSD permits:

PSD-X79-05

On page 1 of 5, line 27, change eleven to five.

PSD-X80-09

On page 1 of 6, line forty-two to forty-four.

PSD-X81-01

On page 1 of 5, line 26, change ten to nineteen  
(natural gas-fired turbines)

On page 1 of 5, line 26, change nine to a total  
heater capacity of 2450 MM BTU/hr.

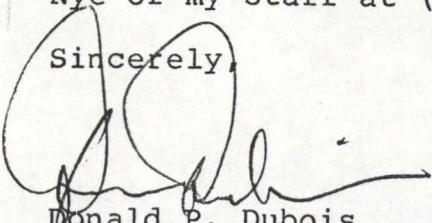
Additional public participation in accordance with the PSD regulations will not be required for this permit modification.



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If you have any questions please feel free to contact Raymond Nye of my staff at (206) 442-7176.

Sincerely,

A handwritten signature in dark ink, appearing to read 'Donald P. Dubois', with a large, stylized initial 'D'.

Donald P. Dubois  
Regional Administrator

cc: G. N. Nelson, SOHIO  
T. Hanna, ADEC  
D. E. Dias, SOHIO  
J. Sweeney, AOO